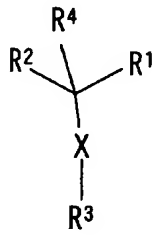
REMARKS/ARGUMENTS

Applicants' representative would like to thank Examiner Oh for the courteous and helpful discussion of the issues in the present application on January 25, 2010. Applicants would like to thank Examiner Oh for the indication that upon amendment of the claims as herein, the outstanding rejections would be overcome. The above amendments and following remarks summarize and expand upon the content of the January 25 discussion.

Claims 1, 8-17 and 23 are active in this application, claims 21-22 being withdrawn due to restriction by the Examiner, and claims 2-7 and 18-20 being canceled. Claim 1 has been amended to incorporate the limitations of claims 3, 4, and 7, and to delete the inclusion of substituents that are or contain heterocyclic groups. Similar amendment has been made to the dependent claims as needed. Claim 15 has been amended to remove the term "prevention" from the claim. Claim 23 has been amended to delete the first 5 compounds listed in the claim, as these specific compounds will be pursued in copending later-filed application serial no. 11/829,533. No new matter has been added by these amendments.

Applicants request that upon allowability of the product claim 1, that claims 21-22 be rejoined as set forth in the MPEP.

The present invention relates to a compound represented by formula (1)



(1)

where R^1 represents phenyl which may have a substituent, R^2 and R^3 each independently represents pyridyl which may have a substituent, R^4 represents a hydrogen atom or a C_{1-6} alkyl group and X represents –S–, –SO– or –SO_2–; and N-oxide or S-oxide thereof or a salt thereof, wherein the various substitutents for R1-R4 groups are as specified

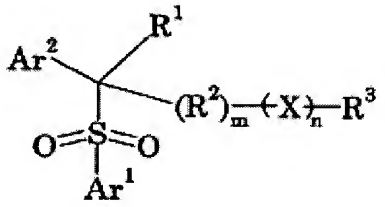
in the claims. These compounds are found to have an inhibitory activity against production or secretion of β-amyloid protein and can be used in a preparation of pharmaceutical compositions to treat various diseases caused by the abnormal production or secretion of β-amyloid protein such as Alzheimer's Disease, Downs Syndrome and other diseases associated with amyloid deposition.

The rejection of claims 15-16 under 35 U.S.C. 112, first paragraph has been obviated by the deletion of the term "prevention" from claim 15.

The rejection of claims 1, 7-9, 11-12 and 14-17 under 35 U.S.C. 112, first paragraph and the rejection of claims 1, 3-4, 7-17 and 23 under 35 U.S.C. 112, second paragraph have been obviated by the present amendment. During the discussion of January 25, 2010, the Examiner indicated that the chief concern regarding the claims was the inclusion in the scope of the claims of various substituents and groups for R1-R4 of formula (1) which were or contained heterocycle or aryl heterocycle groups. Additionally, the use of the phrase "may have a substituent" was of concern to the Examiner. Accordingly, Applicants have amended the claims to more explicitly set out the various groups for each of R1-R4 and X of formula (1), and their substituents. Further, the claims have been amended to remove the various heterocycle or aryl heterocycle groups or substituents. Additionally, the Examiner's rejections of claims 3-4 and 7-13 for lack of antecedent basis for the R groups is traversed, since each of the remaining claims 8-13 are dependent on claim 1, and thus contain all the limitations of claim 1, including the various recited R groups. Thus, these claims merely further restrict various of the R groups as stated. As such, these rejections should be withdrawn.

Claims 1, 3-4, 7 and 14-17 stand rejected under 35 U.S.C. 102(b) over Harrison. As discussed in the January 25, 2010 discussion with the Examiner, Harrison does not rise to the level of anticipation of the present invention, and cannot render the present invention

obvious. As noted in the previous response, Harrison et al. discloses sulphones which modulate the action of γ-secretase wherein the sulphones are compounds of formula (I)



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wherein the various substituents are selected from a broad variety of possibilities. While it may be possible to somehow pick and choose from the various substituents while specifying that variables m and n are both zero and somehow arrive at a compound of the present invention, Applicants note that none of the examples within the Harrison et al. reference disclose such a compound and **more importantly Harrison et al. provides no method in which to produce a compound of the present invention where m and n are both zero with Ar^2 and R^3 being phenyl or pyridyl as required in the present invention**.

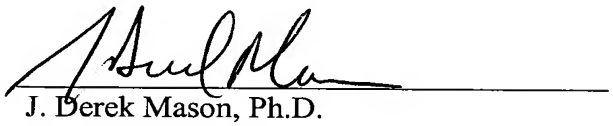
In particular, Harrison et al. discloses a variety of compounds and several methods for making their compounds within the text of their application. Beginning at page 13, line 3, Harrison et al. begins to outline the various methods for preparation of their compounds. However, **none** of these methods describes the preparation of a compound wherein m and n are both zero as required to meet the present invention, nor is there any description of a process that would permit the preparation of such compounds, particularly since the group of the present invention that would correspond to R^3 of Harrison et al. must be either phenyl or pyridyl, which **cannot** undergo the type of substitution reactions being described in the processes outlined by Harrison et al. In particular, Harrison et al. outlines various nucleophilic displacement reactions in order to couple their reaction materials to

arrive at the final product. Such a reaction cannot be used to generate compounds of Harrison et al. that would correspond to those of the invention. Accordingly, Harrison et al. is **not enabling** for the preparation of compounds of the present invention and thus cannot be an effective reference to anticipate or render obvious the present invention. As such, the Examiner's rejection must be withdrawn.

Applicants submit that the application is in condition for allowance and early notification of such action is earnestly solicited.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, L.L.P.
Norman F. Oblon



J. Derek Mason, Ph.D.
Attorney of Record
Registration No. 35,270

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
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